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# THE JOURNAL OF PHILOSOPHY

## PSYCHOLOGY AND SCIENTIFIC METHODS

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### BELIEF AND THE CRITERION OF TRUTH

IN a previous article in this JOURNAL, I attempted to justify a familiar definition of truth—that of correspondence between idea and reality. The chief practical interest which we have in the truth problem, however, has to do with a further matter—the question of the standards which enable us to separate truth from error. It is no objection to a definition that it does not do this. All that it professes to do is to tell us what we mean by calling a thing true, a meaning which is present whether we are right about our belief, or mistaken. In order now to get to the more practical matter of a *standard* of truth, I should like to retrace my steps and approach the problem from a somewhat different angle. And I should be glad to start off with a preliminary statement so simple and self-evident that it could be accepted by everybody. But since this is hardly to be expected in philosophy, I shall do the next best thing; I shall take what is to *me* the simplest and most self-evident proposition I can hit upon. The preliminary definition is this: Truth for me is that which I can not help believing. To make clear what I understand by this will perhaps take a little explaining.

I say that I do not see how any one can refuse to accept this proposition so far as it goes. Certainly that which I do *not* believe I can not in any intelligible sense call true; this would be to empty words of all accepted meaning. And everything that I really *do* believe must come under the head of what I call the true. The main question would seem to be about the words "*can not help believing*." This limits the field somewhat, as indeed it is intended to do; for we are engaged on a philosophical inquiry, and what we are after is not anything that may *seem* true, but what approves itself as true to the persistent inquirer. If we simply *believed* things, the problem of truth would not yet exist. It is because we discover that a number of things we have believed do not retain our belief, but turn out false or doubtful, that we set out to hunt for some standard truth, which is *really* true. My statement in the first place is intended to presuppose this situation, and to identify real as distinct from mere temporary and apparent truth, with what we per-

sist in believing after doubt and inquiry, that which we find ourselves unable to get away from no matter what the skeptical temptations. If the objection is made, therefore, that many things are held to be true the belief in which might very well be shaken, I reply that so long as we do not examine our beliefs critically this is the case; but I am considering the situation where we do examine our beliefs critically. Suppose, then, I find myself *genuinely* able to doubt a pretended truth—not simply to think of myself in imagination as doubting it; can the thing still belong to the category of the true? Evidently not; it belongs to the doubtfully true, or that about which I am in doubt whether it is true. It might be said that I can still determine that it shall be held true by me by an act of will. But this means, either that the doubt still persists in my mind, in which case I do not believe it true, but merely want it to be true, or act as if I believed it true; or else by my act of will I succeed in forgetting the doubt, excluding it from my mind. Then real belief indeed returns, but only because I have excluded *myself* from the field which we are setting out to examine, and have gone back voluntarily to a naïve and pre-philosophic state.

With this preamble, I may go on to point out certain implications in the statement, and thereby begin to make it more specific. In the first place, it implies that *belief* is a more fundamental concept than *truth*. We have, in other words, to start with the psychological existence of a certain peculiar attitude of mind, not with a reasoned definition or an objective fact. We have the belief before the question of truth arises at all, and we have to go back to the fact of belief to determine whether any truth is left at the end of the inquiry. If it is not—supposing such an outcome to be humanly possible—then we are skeptics, and truth for us does not exist. If, on the contrary, we still find ourselves believing, it is not that we have discovered standards of truth which independently produce the belief, but rather that the beliefs left in the field are what we have to examine in order to discover in them the marks which we then erect into a standard. And even if we do not succeed in analyzing them sufficiently to elicit the standard, we should still hold that the beliefs represent truth.

This leads to a second point. When I say that truth is what we can not help believing, I do not mean simply what it is *logically* impossible not to believe, or what can not be believed without self-contradiction, but what it is naturally, or physically, or morally, or practically, impossible not to believe. It is what as a matter of fact we actually do believe, irrespective of what the reason may turn out to be, or even whether any satisfactory reason can be found. We should be in a hard case indeed if mankind before believing in truth

had to wait for the philosophers to define its nature and conditions. And what particularly I wish to repudiate, in a preliminary definition, is, as was indicated above, the assumption that we have no such thing as truth, or knowledge, until we get what can meet the test of *logical* certainty. This has actually been the assumption quite generally in philosophy, and it has had unhappy consequences. By setting up a goal extremely difficult, at any rate, to attain, if not actually impossible, it has tended to widen the gap between theoretical and practical truth, and has left a general impression in philosophy of skepticism, quite out of relation to the concrete history of the growth of human knowledge. When we find mankind assured of the possession of a great deal of knowledge which the philosopher asserts is not knowledge at all, it would seem more modest, as well as more fruitful, if philosophy were to modify its definition in the direction of common usage, instead of setting up an *a priori* definition of its own, and then condemning actual human knowledge because it does not measure up to this. My own point is that the feeling of certainty, of settledness and assuredness, when this is not dogmatic, but is ready to lay itself open to all the evidence at hand, ought to be taken in the first instance as the sign that we are in possession of truth. If we actually have this, and continue, after open-minded criticism, to have it, where the logical test can not be applied, that means that we have no right at the start to identify the logical test with knowledge, and to demand that it must be met before we as philosophers are satisfied. If as human beings we are satisfied without this, then philosophy must accept the fact as part of its data. And that men are thus capable of being satisfied is shown by the standing fact, frequently a matter of perplexity to the philosopher, that the belief in an outer world, or in the independent existence of our fellows, or in the obligatoriness of the moral law, survives with hardly an effort the most overwhelming critical assaults.

Another explanation is perhaps needed in connection with the words "for me." A certain difficulty, it may be admitted, lies here, which can hardly be disposed of briefly. But if we are willing to stick for the time being to words as they are commonly understood, it is not difficult to make all the distinctions immediately relevant. The most direct source of confusion is that between "truth for me," and actual or objective truth. That this may stand for a genuine distinction I should be myself the first to claim. Purely on the ground of experience, it is obvious that I may at least have at one time a conviction of truth which afterwards I may lose. But our common interpretation goes further than this; it makes a difference not only between the feeling of truth now and later, but between the feeling or persuasion of truth and the real truth *now*. It holds that

whatever my belief in the matter, a thing is really true or not true all the time; that there is an objective truth of fact, to which the personal belief may or may not correspond. In saying, then, that truth *for me* is what I can not help believing, I do not mean to imply that truth in the so-called objective sense is limited by my psychological beliefs. On the contrary, in every belief there is present the assumption of a validity which does not depend on the belief itself, but on objective conditions. All that I mean is that, whether the belief is justified, or is a mistaken one, every truth that we actually have up must first be believed to be true by some man in particular; and therefore, for human purposes, it is impossible to separate what is really true from what is believed to be really true, and get at the former apart from the belief. The fact may be one way or the other, or it may be something quite different from what has ever entered into the mind of man; but it becomes a matter of human inquiry and human dispute only as it is the object of a belief. Reality, as it presents a definite content that we can talk about, is subject to all the vicissitudes of human thought about reality. "Truth for me" means, therefore, not that reality is necessarily what it is believed by particular human beings to be, but that man can get to a knowledge of reality, not by *being* it, but only through belief about it; and while belief always supposes that it has got at the actual facts, we know that this supposition is not always correct. From such a possibility of mistake we, as human beings, can not get away. No man, not even the absolutist philosopher, is able to get round the fact that any statements which he makes are after all *his beliefs* about things; they enter the field of discussion as reality interpreted by *him*, a private individual. Truth, in other words, is a term that belongs primarily to the realm of human thought about reality, and had better be confined to this. If, then, we intend to mean what I just called, somewhat loosely, objective truth, it would be better to use rather the term objective reality, or fact. Objective truth in this terminology would only mean statements that are *really* true; the word "objective" is therefore superfluous, since all truth supposes itself really true,—contains, that is, a reference to reality which it assumes that it is adequately describing. That it is sometimes mistaken, is due simply to the fact that it is man who talks about truth; and man is not infallible.

The problem of the criterion of truth is, accordingly, this: What, on reflection, justifies us in *continuing* to hold to our confidence in the things we believe to be true? And the problem divides itself into two parts: First, what are the original sources of belief? and, second, what is the test which we apply to strengthen our confidence, or justify it *rationally*, when for any reason it shows signs of failing?

The first question I shall attempt to answer here only very briefly. There are two forms of primitive, or intuitive, belief—belief, that is, that rests on its own bottom, and does not depend upon security borrowed from other beliefs. There is on the one hand intuitive *certainty* in the stricter sense, where confidence depends on the immediate seeing that a thing is self-evidently so. But this, I should hold—I have not the time to justify the thesis here—applies only to the immediate perception of the existence, or the meaning, of our own mental content. This it is apparently which gives the *type* of certainty, and, perhaps more or less unconsciously, affects the philosophic demand for an infallible standard; but the range of its application is so limited that it can almost be disregarded in significant problems. The second is represented by such things as these: the confidence that my geometrical intuitions apply to a real spatial world, or that my logical demands are accepted by reality, or that events actually were as I remember them, or that my sensations give me information about actual things and forces. None of these is capable of the same kind of certainty; and our belief must therefore come from some other source.

The source is, I judge, reducible in every case to the implicit faith we have in our own nature and instincts. There are tendencies in various directions which are just what we mean by ourselves, and from whose influence, therefore, we can not normally get away; and belief is just the conscious side of that persistent active direction of attention which no obstacles can effectively shunt off. And there are three forms which human nature takes in its work of influencing primitive belief; it is to be remembered that I am considering for the moment only the starting points of belief, which must be presupposed before confidence can either be strengthened or weakened by the subsequent application of criteria. There is confidence due to our intellectual nature, our practical needs, and our emotional preferences. That these represent actual occasions of belief—I am not at present arguing that any of them are justified—it appears to me is sufficiently established by pointing to familiar facts. The most fundamental source of belief is trust in our intellectual constitution. That there is such a constitution—ways of the mind's working that are a gift of nature—I take it that any reading of evolution must show. To think at all we have to accept our human ways of thinking; and that men do accept them, and place confidence in their own intellectual make-up, is a plain matter of fact. It seems to be so, however, that this is a general ground for believing at all, rather than a source for beliefs in particular. It represents a condition back of any and every belief if it is to be held valid, and so may furnish a reason for rejection; but it does not of itself constitute a

positive ground of justification for any alternative in particular. It says only, for example, that it is impossible to assert and deny at one and the same time; it does not say which of two contradictories should be accepted, or tell us anything about the actual compatibility or incompatibility of things.

The second aspect of man's nature, his practical needs, also, I take it, is self-evidently a source of belief. Man can satisfy the needs of his organism only by taking for granted, and utilizing, the physical world in which he lives; and that the strong practical assurance he has of the existence of this environing world is connected with his absolute need of accepting it if he is to continue alive, seems pretty plain. There has not been so general a philosophic justification of this belief. It is not difficult to throw doubt upon it if we elect to keep to purely intellectual considerations. So while almost all philosophers agree to trust man's intellectual nature, very many have hesitated to trust his practical nature; and the practical source of the common man's belief in an external world has been thrown out of court. But the fact remains that such arguments have entirely failed to eradicate the belief, either in the non-philosophic mind, or, it is likely, in his better moments, in the philosopher himself. Accordingly, as a real and persistent belief it has to be taken account of in our search for truth; and the fact that abstractly it reveals the same basis as in the former case—confidence, that is, in the root demands of human nature—ought, it might seem, to be a little in its favor.

The third source in human nature, emotional demands, has a still poorer standing in the philosophic world; and here the philosopher gets some support also from the more cautious layman, who sees that beliefs due to emotion or desire are peculiarly liable to go astray. At present, however, I am simply pointing to the fact that desire and feeling do notoriously tend to carry belief in their train; and their influence is so far-reaching and insidious that even the philosopher on his guard against it does not escape. The very effort to escape has its dangers; a man will almost invariably be found leaning a little backward through his desire not to be influenced by desire. And if we really can not escape the influence without super-human powers, it might seem the more sensible course to include this, too, in our theory of belief, and so of truth, since, again, if human nature is the source of belief, any ineradicable element of human nature may be expected to play a part.

So far no answer has been attempted to the question, How, when belief wavers, are we to go to work to give it a reflective or rational justification? It is highly important to remember again that belief must already exist before this question can be asked, and so that

there must be a first and ultimate source of truth which is pre-rational. But equally it is clear that mere immediate or instinctive belief is not enough for human beings. Such belief needs to be emphasized in its proper place, in view of the strong metaphysical temptation to overlook it, and to reduce everything to logic. But for our ordinary purposes it can be taken for granted; the main interest lies in the further question, How can beliefs be *justified to reason*, so as to separate out the sheep from the goats?

The answer I should give to this is the familiar one of coherence. Coherence I should reject as a sufficient definition of truth, or a sufficient reason for belief. But with belief presupposed, it does seem to me the only test by which we can justify belief to the intellect, outside the very insignificant field of intuitive certainty as before defined. This does not necessarily mean that we ought to abandon all beliefs that we can not so justify; nature may be too strong for us. But nevertheless we do find on the whole that rational belief is the better and more satisfying sort; and so long as we play the game of reason, and profess to have passed beyond the first naïve and non-reflective stage of experience, the meaning to *justification* is inclusion within a coherent system.

The ground for this does not, however, lie in the fact of logical necessity taken by itself. The essence of the coherence criterion is not certainty of logical deduction, but consistency of fact or experience. Mere logic never by any possibility can add more certainty to the conclusion than existed in the premises. Its ideal is, therefore, to carry back proof to more and more general premises, until at last it finds something certain in its own right on which it can rest, and from which then a derivative certainty passes to the consequences. The ideal of *system*, on the contrary, implies that certainty grows continually as new facts are added. Accordingly, the simple elements most fundamental in our system are not self-evident truths, which refer only to mental content, but, rather, those intuitions, or immediate beliefs, which are expressions of faith, since these alone lead us to reality in the large sense. But these, although they are objects of natural belief, are not yet *rationalized* or intellectually justified belief; when we are led to reflect upon them—which means that their mere instinctive operation is no longer sufficient—they are seen to need a further support through reason—as self-evident truths do not. The conclusions, that is, have to be more certain than the premises. And the possibility of this depends, again, not on logical deduction from the self-evident, but on a *coincidence* of evidence. In other words, when we see that two independent beliefs corroborate one another, the confidence we have in both is increased; and this is what we mean by their intellectual justification. For this to hap-

pen, logical processes are required, because to reinforce one another the two must come in contact in a connected system. But the essence of the validation lies not in the passing on of an equal measure of certainty due to the process of inference, but to the *increase* of certainty due to the confluence of evidence.

This applies to what I have called the laws of the mind in the very general sense that, by working along the lines which they set, we find that we do succeed within limits in ordering the universe of experience. The probability that a special type of mind is fitted to reality, which to an outside observer must seem in the abstract highly dubious, is to us, as insiders, almost a certainty, since we come to the question already with an immense amount of evidence at hand in the shape of successful experience. The material of experience, which, in some interpretation, comes to us palpably from independent sources, nevertheless allows itself to be organized; our minds approve themselves by turning out to be perfectly good tools for helping us to make our way in the world. This never gives theoretical certainty; it is possible that we may just happen to have got along so far without disaster. But we have enough for *practical* certainty; and the ground for this, once more, is to be found in the combination of a naïve tendency to accept what our nature impels us to accept, with the logical justification which this gets in proportion as experience proves amenable to our intellectual interpretation.

The justification of our practical persuasion is represented in the experimental methods of science. The greater the number of facts, obtained independently through the senses, which fit into the more or less hypothetical schemes of the various sciences, the stronger the confidence in, and sense of logical justification for, these schemes. The outcome of experiment is not simply to prove that the investigator was right in expecting some particular result to turn up, though this is all it proves with certainty. His meaning was not that this particular future event would happen, but that the fact of its happening verifies a certain constitution of reality held to be responsible for it. Here also, to have its logical value, there must be a belief presupposed which is to receive verification; otherwise the new fact simply happens. Fulfilled expectation would have no logical force unless there were a presumption of law prior to the mere facts of experience in detail. This presumption is given in the law of causation as a practical postulate, or an intellectual principle having its basis in the necessities of our practical nature. The world being what it is, unless an organism had, ahead of actual experience, a tendency to look for repetitions of experience, and to act as if uniformity existed, it would stand little chance of surviving. The law of causation seems to be the translation into terms of the intellect

of this habit of expecting the familiar. But while as a postulate, or implicit belief, it precedes experience, as a *justified* belief it gets its standing from the fact that nature is on the whole inclined to bear it out.

The most controversial side of the situation is in connection with the postulates of emotion or desire. That these do actually influence our belief is plain. That they are as genuine a part of human nature as the elements which have already been accepted as legitimately swaying belief is, most people would grant, also true. Why then should there be so much hesitation in allowing them equally a theoretical right in the matter?

The reasons are apparently of two sorts. First is the familiar empirical fact—a part of the system of our world of facts, therefore—that beliefs influenced by feeling or strong desire have, where it is possible to verify them, so often been proved to be in the wrong; and, second, there is the tendency which emotion shows to attach itself to matters where proof and disproof are alike impossible or very difficult, and so to evade the tests that elsewhere have been found useful in keeping belief within safe bounds. Both these facts have to be recognized, but they ought not to count for more than they are worth.

The first objection implies that the case against feeling is not *a priori*, but empirical. There is nothing in it to make us reject outright the claim of any tendency to belief which is grounded in human nature, but only beliefs in whose case there are, and in so far as there are, positive grounds for doubt. If we are to begin doubting wherever there is a logical chance for doubt, without regard to reasons for doubt in particular, we are certainly on the way to a complete skepticism. We have to ask, then, why it is that emotional beliefs are so provocative of doubt; what is the positive case against them? And to this the answer seems pretty clear. Emotion is apt to be misleading, not because the thing we believe in is something we want, but because wanting it is apt to affect our mental processes and prevent us from looking at the facts just as they are. If emotion did not blind us and keep us from straight thinking, if it did not lead us to overlook and close our minds to uncongenial evidence, I see no special reason why the fact that the object of belief is something we desire should constitute the least drawback. On the whole, in view of a number of considerations, the presumption that the universe has some favorable relation to human desires and possibilities seems quite as easy to make out a case for, as the opposite assumption that between our human demands, and the constitution of the world, there is absolutely no relevant connection. Doubtless the facts are not compelling, and a good

deal depends upon the attitude in which we approach them; but my point is that an unfavorable impression is just as likely to lead to a bias as a favorable one, especially in view of that subtle temptation to adopt a non-humanistic preference because it is not quite the popular opinion, and so ministers a little to one's spiritual pride. The real objection to the emotions is not that they are at work, but that they are at work *surreptitiously*, and so produce effects that are incalculable. The trouble is not that we reason in terms of emotional objects, but that we reason in emotional ways, and so can not get these objects in their proper perspective. If, accordingly, it is possible for a man, as it surely is to a very considerable degree, to include his own desires within the field of his reason without being bound therefore to adopt of necessity a blind and prejudiced attitude toward them, if I can estimate the claims even of what I want impartially and without ignoring considerations on the other side, the positive ground for suspecting emotion would have been removed without prejudging the entire case.

The remaining difficulty, therefore, would be that the beliefs are capable of no further test. Even if this were so, it is conceivable that they might prove to be ineradicable; I should agree, however, that in such a case their intellectual standing would not be very satisfactory. But at the worst, it is to be noticed that this very fact will prevent them from being left *wholly* without intellectual justification. Thus a man, without being able in any other way to give reasons for an emotionally satisfying belief, might very well, and probably would, justify himself to this extent: The very strength of my unreasoning belief, he will say, and the fact that it persists against discouragement, is proof to me that it must be justified, though I can not see how in detail; for whenever I find such persistency in nature, I have reason to hold that it must be rooted somehow in reality. It is to be noticed that a man has a right to this attitude only in case he has not allowed his desire to blind his eyes, but has actually put his belief to the hazard of the unfavorable evidence, and shown by experiment that it holds its own in the face of this, and so that its persistence is not due to its being sheltered artificially from danger. But this granted, the conditions of the rational criterion have been met. It is not simply that the belief exists; its existence has been *justified*, and justified by being brought inside a larger system of facts. It may be its emotional source in human nature which gave strength to the original belief; but that which grounds the secondary judgment that it is a *justified* belief is the fact appealed to, that the universe is such that it does not give rise to persistent demands which it is not prepared to gratify. This may not be a convincing argument in the case in hand; but it is in

character, nevertheless, a rational, and not a merely emotional justification.

Whether we can go beyond this very general justification can hardly be answered except by considering in detail beliefs in particular. But it may be noted in a general way that the attempt at justification may take either of two different forms, or both together. The general point I am trying to make is, again, that an emotional belief can be justified only as it enters the rational field and submits to the test of consistency. Now the simplest form that such a belief can take is this: that the world is such as to render the achievement of my ends, or desires, practically feasible. It is clear that such a belief is verifiable in the same sense that a physical hypothesis is verifiable; it is proved by actually achieving these ends. Before the issue it stands justified rationally in terms of our existing knowledge of the character of the world, and of what therefore can probably be done in and with it; when the end has been gained or definitely lost, then, in so far as the belief was simply directed to the possibility of success, it is attested or discredited by the fact.

It is not this practical meaning, however, which has been seriously at issue in philosophy. What one side has claimed and the other disputed is not whether the world is such as to permit the attainment in it of our concrete human ends, but whether it has in its own character certain qualities that involve, not a mere tolerance of our preferences, but the same preferences as our own. This certainly is our naïve point of view under the influence of our feelings. We say naturally, not that the world affords us a chance to indulge our preference for the good, but that the world itself is good, and is working toward a good end. I am not proposing in the least to argue whether this claim is or is not justified; I only say that to go to work to justify it, one must apply the criterion of coherency, and that while the evidence is less convincing, perhaps, it stands logically on the same plane as in the case of any belief professing to describe the *nature of things* as distinct from the *sequences of phenomena*. And even in terms of sequences, complete verification never attaches to universal *laws* of sequence, but only to eventualities in the way of particular anticipated happenings. Just as a belief, then, that the world is intelligible, starts from a natural trust in the powers of intelligence, and is justified by the success with which progressively we bring the world into relation, or just as the belief in the objectivity of scientific law starts from a bias towards orderly expectation, which more and more is rationally justified as events are found to correspond to the expectations aroused—otherwise our belief would not be in a universal law, but only in the particular fact anticipated, and the actual result would verify no more than this

particular expectation—so the belief that the world is good starts from our naïve faith in our emotional preferences, and may equally be considered as verified in so far as the universe turns out to be favorable to the leading of the good life.

And in the same way, though with extreme caution, the possibility is open for a rational holding of beliefs which assert more particular matters of fact, even when verification is humanly impossible. The case that most naturally suggests itself is that of immortality. At the start a belief in immortality is almost on a par with the early glimpsing of ideal human possibilities in this present world—the first dim intuition, say, of a universal human brotherhood. This for a long time had to look so far ahead into the future for its verification that it could be held, like a belief in immortality, only on the ground of an inner assurance of its desirability. But the cases differ in that we should hardly hold as justified a belief about earthly possibilities which history did not show some tendency to realize, whereas immortality at the end is supposedly in the same case as at the beginning, so far as experimental verification goes. But the other possibility remains open, which must always be kept in mind in face of the popular tendency to make scientific verification a necessity, if we are to hold beliefs about events or particular existences. If the belief can be shown to be logically connected with other beliefs for which we do have some ground in the facts of experience, it shares in some degree their rational character. This is the case in science where a fact can be seen to follow from an accepted hypothesis. We do not feel too confident, for we know the uncertainties of our knowledge, until by experiment it has been verified; but it would be a much over-wrought spirit of caution which would refuse it all credence. In proportion to the certainty of the hypothesis and the clearness of the logical connection, do we take many things for granted which we never have put actually to the test. And the belief in immortality makes no claim different in kind, though it may of course differ indefinitely in degree. If we have reason to believe in a particular kind of world, which would be contradicted by the failure within it of certain kinds of life to continue, the belief in immortality is in so far a rational belief, and ought not to be rejected offhand as a mere product of unreasoning human desire. Verification is indeed highly valuable in itself if we can get it, and its absence is a drawback. But it is not essential to rationality. The logical value of verification lies not in the mere experience of the new fact, but in the way in which it enters into the system of reality already present in the hypothesis, and so enlarges and strengthens this. Fundamentally, therefore, it plays the same part as any other fact in this system. But it gets a peculiar significance

simply because it was prophesied and thought out ahead of experience; not only does it counteract our natural tendency to be satisfied with the facts we have already collected, but it is indefinitely improbable that an expectation based upon a complex reasoning process will simply *happen* to hit the future event, as it would do were not the hypothesis already on the right track in its understanding of the world.<sup>1</sup>

I may sum up the position I have been arguing as follows: We have to distinguish between the necessity of a belief, its self-evidence, and its practical certainty; and what we are really most concerned about in truth is the last. This is a psychological feeling, a persistent acquiescence or assent which, if it goes along with an honest attempt to canvass the whole situation to the best of our ability, utters the final word about what we shall regard as truth. And instead of attaching to the simplest truths, it belongs rather with the growing fulness of belief and experience. It is due to the compounding of assurance that comes from the working together of numberless facts and satisfactions, and has in it an element both of faith and of intellectual justification, the blending of the two constituting reason. In the large, the faith is faith in ourselves—in the demands of our nature, and the possibility of their satisfaction. This exists prior to the facts, because our life is organic before it is intellectual, and we can not in thinking eliminate ourselves. But we find also these demands capable within limits of getting satisfaction, and so to the naïve trust is added rational conviction. The greater the bulk of experienced fact that comes within our system, and the greater the facility of successful anticipation of future fact, the more our confidence extends; and equally it is greater, the more widely it appeals to the various sides of our nature, in so far as these are approved as normal by the teachings of experience. This is why, other things being equal, a philosophy which finds a place for our emotional needs has a better chance of survival than one which merely orders the facts of sense experience. The former exercises no compulsion whatever over a mind which is not predisposed in favor of humanistic considerations; and if the human mind generally could be counted on to take the same attitude as that of the occasional naturalistic philosopher, the final success of naturalism could probably be predicted. As a matter of fact, it leaves something out which

<sup>1</sup> What I should regard as valid in the pragmatic criterion is, in part, this emphasis on the need of verification *wherever it is possible*, and in part, the claims of practical and emotional satisfaction. But the latter point, as I see it, belongs to a rather different problem—what I have distinguished as the problem of the original source of belief; as *justified* or rational belief, it has relevance only as the considerations involved enter as elements into the intellectual content of our world system.

human nature seems to want; and it is humanism which every time steps in and prevents its triumph.

I may call attention again, in conclusion, to one aspect of the point of view I have been trying to present. Apparently, in opposition to the tendency, from which modern philosophy starts, to search for certainty in belief among the simple results of analysis, it recommends rather the comprehensive beliefs of developed human experience as our standard of assurance in the holding of truths. And to this conclusion I subscribe. Roughly and in the large, I believe it to be so that "common sense," or the more massive convictions of the human race, of man in his natural habitat going about his regular business, supply a standard of sanity which philosophy will reject at its peril. I shall not, however, try to justify this position further, except by noting two points of interpretative caution.

In the first place, I do not, in saying this, intend to disparage analysis. On the contrary, it is only through analysis that beliefs become amenable to reason at all.<sup>2</sup> We can not be content to accept things simply in the mass, for that leaves no way to choose when the voice of mankind is uncertain in its utterance, or when, as constantly happens, the general belief needs modification and readjustment. I only say that we can not expect to get ahead by throwing over the concrete beliefs of every-day use and confining our assent to their simpler ingredients. The path of knowledge is altogether too crooked and tangled to render this a safe procedure; it is of no avail to have, in reason, a compass, unless we know more or less concretely the goal we are setting out to reach; and there is nothing to supply this if not that somewhat vague and loosely articulated, but very real, *welt-anschauung*, which represents the net outcome of man's experience up to date, which passes over to the individual first as a biological and social inheritance, and which in its large features has already approved itself to him in practise before he is competent to bring criticism to bear upon it, although this or that aspect of it may call insistently for revisal when he is able to interpret his demands on the world more discriminatingly. Just as we commonly think that social reform is best accomplished by taking existing social institutions for granted, and correcting this or that feature as circumstances may dictate, rather than by setting out to abolish everything all at once and building up society from the bottom—the latter task is plainly too big for human powers—so in our philos-

<sup>2</sup> I may call attention to the fact that my position here is very similar, up to a point, to that of Newman in his "Grammar of Assent"; the disclaimer will rule out, however, certain uses to which Newman puts his theory which are plainly illegitimate.

ophizing the only practicable method is, not to doubt universally, or wherever academic doubt is not absolutely precluded, but to examine our beliefs piecemeal, all the time holding fast as a background to that positive nature of things which appeals to our massive and unanalyzed intelligence through its satisfactoriness on the whole, apart from which we have no way whatever of telling whether any aspect in particular is more or less probable, except in the relatively few and unimportant cases where it is strictly self-evident. To deny this it seems to me would be to overlook two decisive facts. One is that we can not think at all without a background. Thinking is the bringing of our existing beliefs to bear upon the examination of a belief in particular; and the greater the mass of experience interlaced in this apperceptive mass, the more valuable the judgment, though the precise nature of the elements thus present can not in the judgment itself be subjected to analysis. And for sound judgment, this background must have been present at the first step of analysis, unless we are to suppose that the man with positive convictions and a full experience is less qualified to perform the critical act than he whose mind approaches a jelly or a blank. It is not, then, that we clear our minds as nearly as we can of all content when the first analysis is performed, and allow it to fill up again only as the intellectual process advances. What determines the worth of our results is precisely the wealth of unanalyzed experience lying back of the rational process. Naturally, this "assumed universe" ought not to be held exempt from progressive analysis and criticism; we should understand as fully as possible what we are presupposing and why. But the criticism is rather to remove internal inconsistencies than to put on trial the conception as a whole; if we cast aside the garnered fruits of experience, racial and individual, altogether, what remains to take their place? and without some positive background to our judgment, how can we judge? A certain danger does exist in that the very wealth of experience may lead a man to trust his impressions, when a more severe analysis is urgently called for; and it may be inquired, too, whether in view of our knowledge of how unanalyzed judgments go astray, we can avoid a lurking distrust of their pronouncements. But the situation is relieved, in part, by a distinction here. I am not saying that the *judgment* should be unanalyzed. On the contrary, we should use our utmost effort to see our *meaning* in the judgment clearly and distinctly, with the finest discriminations we can manage. No good ever comes of confusion as to what we intend. It is in connection with the grounds for accepting the *truth* of this intention that the vague and more subconscious "total experience" plays its rôle; and while this also should be cleared up as rapidly as may be, my contention is that it

can never be wholly exhausted, and that nevertheless, and even at the start, it is rightly to be trusted under penalty of being left without sail or rudder in a weltering sea of "possibilities" or of "logical entities."

And the second point against the denial is that, as I think, no philosopher ever does hold to the rationalistic method. You will find him all along surreptitiously bringing in the common-sense philosophy of mankind to justify his conclusions—considerations which he would have no manner of right to appeal to if he really were allowing nothing to influence him save his reasoned results up to date; and if he is to do this at all, it surely is much better that he should confess to his procedure and recognize it in his method, not keep it under cover.

What the common-sense world view is, can, in the nature of the case, not be summed up precisely, because it is not itself precise. But it has two main features which will hardly be open to question. There is, first, the scientific side; and this, for modern science, is most comprehensively suggested in the term "evolution" with its implications. There is assumed, that is, a real universe, law-abiding, but also constantly in process of change, and passing to ever new forms of expression. Among these preeminently is man—a creature who does not, however, merely spring from the natural world, but who has the peculiar power of being able to represent to himself this world in knowledge, and then to turn the knowledge to his own ends. With this last point the second obvious feature is closely connected. As man, for science, is a being who through evolution has been endowed with a variety of active impulses, the satisfaction of which constitutes his life, so, for experience, it is found that these needs indefinitely transcend the given or the actual and lead men to the assertion of characters to reality which *ought* to be, though they *are* not. In other words, man is an idealizing animal; he sets up certain ends as worth while, though he does not find them realized in the actual world from which he sprang; and therefore his philosophy has persistently to take account of the discrepancy, and he hits upon various devices for justifying somehow the ideal elements which he finds himself unwilling to give up.

Now even so general a statement as this gives a hint for one further point of interpretation. The first objection likely to be raised against taking the world of common sense as our starting point, is that this world is a very conglomerate affair, and provides no principle of unity such as philosophy demands. In reality, however, a principle of unity is close at hand; and in my judgment it is a more useful one than that to which the philosopher has commonly had resort. Reason, the traditional principle of unity, has ap-

peared to work, I am inclined to think, only because of a readiness to overlook its fundamental ambiguities. If, on the one hand, reason is taken as *objective* reason, or the intelligibility of existence, its unity is pretty much illusory. All it really stands for is the ability to think the facts of the universe together. But of course things already, prior to philosophical interpretation, have been thought together in a sense, otherwise they would not be facts for us. Their "unity" amounts in addition only to a conscious calling attention to the fact that they *can* be thought together; apart from this there is no more unity at the end than there was at the beginning. Concretely, all the discrepancies which called for harmonizing are simply passed over to "reason"; they are not explained because they are called by a new name.

The other interpretation of reason is subjective. But in order to give this any advantage over the previous one, there must be discoverable on the subjective side some form of unity other than the mere compresence of things in a thought content, or in a world. And this, it may perhaps be assumed, is to be found in the concept of a "unity of end"—the fact, namely, that in man reason is used to attain results in terms of a purposeful human life. And rightly interpreted, this is where I think that actually it is to be found; only, from the present point of view, it is misleading to call it subjective. It is not that we start from a subjective human end as our sole assumption, and deduce, if we can, the world from it; rather, man and his ends are objective parts of a total universe which we already have accepted. But they are parts which have the peculiar property of being able to bring into a measure of intelligible harmony our interpretation of the whole. For if we accept as an object of belief the total world of common sense, then the understanding of this world, and all that enters into it, we can explain by showing how it is mediated as a more or less unified life expression of one of the parts of that complete universe which is the object of knowledge, namely, man; although we never could have got the whole world if we had started with a belief in just the human fact and nothing more. For philosophic reflection, our needs are seen to generate our belief; but this reflection already presupposes the whole world in which we believe—human needs included—as *valid*, or it loses touch with reality and becomes a mere academic play with concepts. And in this reflective interpretation, again, what gives the promise of unity to the result is just the experienced *fact* of unity in human life based upon the empirical unity of the organism. To man, as a being who possesses measurably the ability to order and unify his life through the rational power of thinking its elements together and so relating them to a practical unity in the issue and who therefore instinctively tries

to understand the whole world in a way that will lend itself as completely as possible to his aims, is to be traced the only real possibility I see of importing into our philosophic interpretation of reality any greater harmony than that which is implied in the mere existence alongside one another of elements in a thought content.

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## DID CONSCIOUSNESS OF SELF PLAY A PART IN THE BEHAVIOR OF THIS MONKEY?<sup>1</sup>

THROUGHOUT several months of observation of the spontaneous behavior of six caged monkeys (*Macacus rhesus*), *E*'s method of taking food from the others, more than any other acts observed, showed (1) a motive to perform an act, (2) hesitation and choice of method, (3) distinct efforts to disguise his wish, indicating a consciousness of either his wish or self, and (4) a degree of judgment in selecting the proper moment for his act.

When *D*, a rather slow monkey, and *E* were caged together, and a carrot was given to *D* when both monkeys were very hungry, *D* would usually climb to the platform or jump to the floor to reach the level unoccupied by *E*. *E* would watch *D* nervously eating his carrot and follow to the same level in the cage. *D* would promptly change to the other one. After several such attempts on the part of *E* with failure to approach, he would become more cautious and slowly climb to *D*'s level at a good distance from *D*. *E* would keep his back turned toward *D* and watch his victim by occasionally looking over his shoulder. At the same time he usually scratched about in the sawdust before him as though he were looking for food. This act, seemingly of making *D* believe that he was looking for food, usually fooled *D*, who in his eagerness to eat would quit watching the harmless back of *E*. During this time *E* would be working backwards toward *D* until within reaching distance of *D*'s food. His method of working backwards toward his victim was interesting. He would play both hands about in the sawdust before him, apparently interested in scratching for food, although at the same time he repeatedly partly turned his head and glanced over his shoulder at the other monkey. All of this time he would slowly work backward toward his object. Sometimes he picked up accidentally uncovered pieces of food, but often he was so intent upon *D* that he failed to notice conspicuous bits of food. (The value of this pre-

<sup>1</sup> This study of the behavior of monkeys was made possible by a grant from the Carnegie Institution of Washington to Shepherd Ivory Franz, Scientific Director of the Government Hospital for the Insane.